

# EXHIBIT 11

# Ford Media Center

## TESTING IN THE EXTREMES: HOW FORD'S MULTIPLE TESTING FACILITIES PUSH VEHICLES TO THE LIMIT

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**DUBAI, UAE, October 7, 2019** – Ford's comprehensive lineup of testing facilities around the world puts vehicles through everything from the extreme, to the everyday, to ensure that only world-class vehicles roll off the production line.

Across facilities in Thailand, India, Australia, the Middle East and China, Ford vehicles and components are 'shaken, rattled and rolled' in a variety of tests, some conducted in temperatures ranging from an arctic minus 40 degrees Celsius, to desert-scorching heat of over 50 degrees Celsius.

### The Middle East

Based out of Jebel Ali, near Dubai, in the UAE, the engineering team at Ford's Product Development base take the heat during testing on a daily basis.

Thanks to extremely high ambient temperatures during the summer months – and a country covered primarily in sprawling desert landscapes – hot weather testing in the UAE places vehicles under real world conditions quite unlike that experienced anywhere else on the planet.

"With ambient temperatures of up to 50 degrees Celsius, we need to ensure our cooling systems, engine, transmission, driveline systems, and also our passenger comfort are all robust to temperatures like this," said Ziyad Dallalah, Chief Resident Engineer, Ford Middle East and Africa.

“Driving in deep sand places a unique load on the engine and transmission – with high revs at low speed. That means the engine works very hard, placing demands on systems that rely on the engine for power – like the air-conditioning.”

Dust and sand can also play havoc with engine internals and suspension components by accelerating wear on moving parts, so the team also monitors sand and dust egress on the engine, dampers and the cabin to make sure every Ford remains a comfortable place to be, even in the peak heat of a Middle East summer.

## Thailand and India

The Ford labs in Thailand and India are on the frontline of maintaining customer sanity by eliminating the little things about vehicles that drivers can often find exasperating.

At Ford’s ‘Voice of the Customer’ Fleet facilities at the Ford Thailand Manufacturing (FTM) plant, and Sanand Vehicle Assembly Engine Plant (SVAEP) in India, engineers walk in the shoes of customers, emulating the rough and tumble they might put their vehicle through in a variety of conditions and climates. In one of the labs, an environmental road simulator recreates years of travelling over tricky road surfaces, like cobblestones, to check that there are no annoying squeaks or rattle noises.

Hot and cold chambers at both facilities test the functionality of things like the rear liftgate, the hood and electrical features such as the interior heater in temperatures ranging from a sweltering 49 degrees Celsius, to a bone-chillingly low minus 29 degrees. While customers in Thailand and India are pretty unlikely to experience temperatures that low, the team needs to consider customers in the dozens of cold climate countries the Ranger pickup, Everest SUV, EcoSport and Figo are exported to throughout the world.

“Testing our vehicles under controlled environmental conditions gives us the ability to protect our customers by capturing issues associated to varying temperatures and different road surfaces,” said Jay Rada, Asia Pacific Voice of the Customer Fleet Manager, New Model Program.

## Australia

Ford’s You Yangs Proving Ground (YYPG) in the kangaroo-filled paddocks outside Melbourne, Australia is the oldest of Ford’s testing facilities in Asia Pacific, and is also home to some of the most demanding tests conducted anywhere in the industry. Given the rapid changes now underway in the global auto business, Ford’s 950-hectare facility is currently undergoing an upgrade, allowing the company to test a greater range of products and driver assist technologies.

One of the many tests that prototype and pre-production vehicles will undergo at the proving ground is the Total Durability Cycle. This sped-up evaluation runs around the clock, day and night, to simulate 10 years, or 240,000km, of severe customer usage in just a few weeks. Gravel roads, cobblestones, pot-holes, curbs and water baths feature in this grueling test. Just for good measure, environmental factors like dust, water and mud are thrown in, while dynamometers simulate towing heavy loads in traffic and over mountain passes.

“The reason we go to such extreme lengths of testing is to ensure our customers are buying the best possible vehicle,” said Stephen Andrews, Corrosion Supervisor at Ford’s testing facility in Australia.

“These tests push the vehicle much further than your typical consumer would, so we can be confident in the fact they will perform when out in the real world – and if we find anything untoward during testing stages, we have the opportunity to rectify it,” added Andrews.

Another extreme test Ford engineers undertake at the YYPG is the full Vehicle Corrosion Test, which runs for 12 weeks straight, 24 hours a day, seven days a week, so vehicles can withstand even the most humid, salty conditions a coastal life can bring.

Consisting of a controlled humidity soaking, followed by a shake-down over various road surfaces, this arduous test exposes the vehicle to salt, dust and gravel, all the while ambient temperatures and humidity levels drop and spring back like a yo-yo.

The total accumulated mileage for the Vehicle Corrosion Test is a whopping 10,000km, which represents approximately six years of exposure to such regions as the East Coast of Australia or the West Coast of New Zealand.

Just when the vehicles think it’s over, all body panels are removed to check out how they fared for corrosion resistance – even the hidden underbody parts. This process also ensures all areas are assessed for appearance, function and serviceability. Knowing exactly what sections and body parts of the vehicle are effected in certain ways allows Ford’s engineers to better guard against long-term environmental impact.

## **Nanjing, China**

Ford’s new environmental chambers in Nanjing, China, takes vehicles to the extreme by shaking, roasting and crashing vehicles to test their performance.

The first of the three chambers – the sun-load chamber – recreates hours of a car sitting in relentless sunlight. High-intensity lamps heat the chamber to a peak of 45 degrees Celsius, which causes some parts of the car to reach a scorching 107 degrees –hot enough to fry an egg.

To protect against the extreme conditions, Ford engineers who venture inside the chamber to verify the equipment wear an aluminum-coated suit that makes them look like astronauts from a 1960s science fiction movie. The suit is a precaution in case any the metal parts melt and spray in the direction of the engineer while they’re in the chamber, and can protect the wearer from environmental temperatures of up to 200 degrees Celsius.

“During these tests we’re looking for any indications that a material or part will change or warp when exposed to heat and intense sunlight,” said Breeze Shi, Test Engineering Supervisor at Ford’s VEV environmental chamber in Nanjing. “Any bubbling or deforming would make us make improvements so that customers won’t face the same issue.”

In the second chamber, tests replicate what a particular component will experience over 240,000 kilometers on incredibly bumpy roads – all in a mere 72 hours. Vehicle components are strapped to a multi-axel simulation table – a hydraulic platform that shakes, and shakes, then shakes some more. If that wasn’t enough, the tests are carried out in conditions ranging from minus 40 degrees Celsius to 95 degrees. The tests are a way to assess vehicle performance under extremes of use that aren’t practical to replicate on the test track.

The final test chamber is about a crucial vehicle component that can save your life: airbags. If airbags don’t deploy at the right speed, or safely enough, they can be less effective. The airbag deployment chamber in Nanjing uses ultra-slow motion cameras to record deployment so that

Ford's engineers can critically analyze every millisecond of the process to identify potential problems.

When it comes to safety every detail is important, which is why Ford's engineers in Nanjing also test airbag deployment in temperatures ranging from negative 40 to 65 degrees Celsius. But this created a problem for Ford's engineers: the camera equipment can't operate in those temperatures. To overcome this problem, the engineering team developed an innovative work-around, "We came up with a rail system that allows us to cool or heat the entire testing mount in a separate chamber, and then roll it into an adjacent room for the actual test," said Shi. "We can move the entire system and deploy the test in just two minutes, while the airbag prototype is still really hot or cold."

The range and intensity of tests that Ford puts its cars through at its facilities across the region are designed to ensure maximum performance and safety even under the harshest conditions – to learn more, check out this video.

To download the Word document of this press release in Arabic, click here

To download the Word document of this press release in English, click here

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*Ford Motor Company is a global company based in Dearborn, Michigan. The company designs, manufactures, markets and services a full line of Ford cars, trucks, SUVs, electrified vehicles and Lincoln luxury vehicles, provides financial services through Ford Motor Credit Company and is pursuing leadership positions in electrification, autonomous vehicles and mobility solutions. Ford employs approximately 196,000 people worldwide. For more information regarding Ford, its products and Ford Motor Credit Company, please visit [www.corporate.ford.com](http://www.corporate.ford.com).*

*Ford's history in the Middle East goes back more than 60 years. The company's local importer-dealers operate more than 155 facilities in the region and directly employ more than 7,000 people, the majority of whom are Arab Nationals. For more information on Ford Middle East, please visit [www.me.ford.com](http://www.me.ford.com).*

*Ford Middle East is also a responsible corporate citizen with currently various CSR initiatives running in the region including the Ford Motor Company Conservation & Environmental Grants, Ford Warriors in Pink® breast cancer awareness campaign, Ford Driving Skills for Life for young drivers and the Henry Ford Entrepreneurship Academy education initiative for young entrepreneurs.*